

The effect of some topographic factors on natural regeneration of forests burnt and unburned in Atroosh area using remote sensing R.S and GIS techniques.

Ahmed Bahjat Khala

Muzahim Saeed Younis

Mohammed Younis Al-Allaf

Ministry of Agric./Directorate of Diyala Agriculture.

Mosul Univ./college of Agric & Forestry/ Forestry Dep

Email:ahmad.bagat@yahoo.com

Email:mzhmyounis@yahoo.com

Email:moalaf@yahoo.com

ABSTRACT

This study was conducted on scattered in a wooded area in the province of Dohuk in northern Iraq Atroosh and between longitudes $43^{\circ} 17' 23.207''$ - $43.598'' 27 43^{\circ}$, and latitudes $36^{\circ} 49' 12.363''$ - $36^{\circ} 53' 14.208''$, and altitude above sea level between 637-1404 m and the area of 96.58 km². Featuring Atroosh location thereof within the formations of the mountainous region, which has many different plant covers, has been part of these forests to fires in different periods . To find out the the effect of some topographic factors chosen for the study of a rising sea level, slope and aspect we have selected 45 samples wildy dimensions of 30 m × 30 m, and also used the satellite image Pleiades captured on 06/02/2013 by resolution 2m . The study concluded that the fire was less at high altitudes because of the low temperatures and high humidity that limit the fires, the study found that the highest percentage of trees, sapling and seedling was in the northern facade by 37.29%, 38.13% and 37.64% in a row and this shows the power of innovation and the density of vegetation on this interface compared interfaces other as a result of the appropriate climatic conditions of temperature and humidity, and the highest percentage of trees, sapling and seedling was in decline 20%, which is 32.76, 49.21 and 50.48 respectively then there is a clear decline in values and this shows that innovation more efficient on the slopes of moderate or flat areas on steep slope. .

Key words: natural regeneration, Forest fire, Remote Sensing, GIS.